NEW AND INTERESTING RECORDS OF ADVENTIVE PLANTS FROM THE AUCKLAND INSTITUTE AND MUSEUM HERBARIUM 10

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Abstract. This tenth list of some recent additions to the Auckland Institute and Museum Herbarium (AK) and re-determination of earlier gatherings provides new records for some adventive species and further information on the distribution of others.

The main source of material for this tenth list has been by exchange with D.S.I.R., Botany Division, Christchurch (CHR), the National Museum, Wellington (WELT) and the Herbarium of the University of Auckland (AKU). Mr A. E. Esler, D.S.I.R., Auckland, has presented a number of voucher specimens and Mr A. E. Wright, Botanist of this Museum, has provided material collected during several field excursions.

The nomenclature adopted in this paper follows that of volume 3 of the *Flora* of New Zealand (Healy & Edgar 1980) for monocotyledons and that of the series of checklists published in the New Zealand Journal of Botany from 1978 onwards by members of the D.S.I.R., Botany Division staff at Christchurch for dicotyledons.

All specimens are cited by the AK number and by the collectors' numbers where these are provided. Unless otherwise stated the specimens may be regarded as the only material of the species possessed by the Herbarium and, where no previous literature is cited, as first records to the best of my knowledge at the time of writing.

BERBERIDACEAE

Berberis vulgaris L.

Maniototo Co, Ranfurly, waste land and grassland, 1966, A. J. Healy, AK 160136, (dupl. ex CHR 152486).

Sykes (1982b) cites Thomson (1875) as the first record for the European barberry and notes that early records for this species mostly refer to *B. glaucocarpa*.

Mahonia aquifolium (Pursh.) Nutt.

Halswell Co., Otahuna, Tai Tapu, semishade, 1964, W. R. Sykes 593/64, AK 160157, (dupl. ex CHR 151779).

On the label of the above gathering of the Oregon grape a description of the plant reads "shrub c. 6ft. [1.8 m]; fls yellow". Its distribution according to Sykes (1982b) is limited to Hutt Valley, Canterbury and Otago. It is listed by Healy (1969) and was first recorded by him (Healy 1958) from Hutt Valley and Haywards.

FUMARIACEAE

Fumaria bastardii Boreau

Auckland, Mt Albert Research Centre, growing against crib wall, 1981, A. E. Esler, AK 162549, det. A. E. Esler.

This fumitory was discovered by Mr A. E. Esler too late to be recorded in Garnock-Jones (1979). The above voucher specimen was kindly presented by the collector.

CRUCIFERAE

Brassica barrellieri (L.) Janka subsp. oxyrrhina (Cosson) Ball & Heywood

Mangonui Co., Tokerau Beach, 1980, P. J. Garnock-Jones 1373, AK 160121, (dupl. ex CHR 361551).

This duplicate from the Botany Division Herbarium is from the only known locality according to Garnock-Jones (1979), in which publication the first record may be found. A note with the specimen states "sand dunes under and among *Lupinus arboreus*".

Iberis umbellata L.

Mangonui Co., Taipa, quarry, 1975, G. B. Rawlings, AK 160124, conf. P. J. Garnock-Jones 1980, (dupl. ex CHR 366660).

Garnock-Jones (1979) may be consulted for the distribution of this candytuft, which was first recorded by Healy (1958). The latter author again mentions it (Healy 1959) and later lists it for Canterbury (Healy 1969).

Lepidium hyssopifolium Desv.

Christchurch, Mt Pleasant, roadside among grasses, 1980, P. J. Garnock-Jones 1470, AK 160123, (dupl. ex CHR 363056).

The first record for this species is in Garnock-Jones (1979) where the distribution is shown as from the far north, Kermadec Is., down to Southland.

POLYGALACEAE

Polygala serpyllifolia Hose

Dunedin, open rocky area near summit of Mount Cargill, 2200 ft. [615.7 m], 1983, A. E. Wright 5538, AK 16302.

The first record for heath milkwort, from Otago, 1951, is to be found in Webb (1981), where the distribution is given as Wellington, Otago and Southland.

CARYOPHYLLACEAE

Cerastium semidecandrum L.

Mackenzie Co., Lake Tekapo, Mt Hay Station, roadside, 1965, A. J. Healy, AK 163121, det. A. J. Healy, (dupl. ex CHR 152252).

Little mouse-ear chickweed was first recorded by Healy (1969) from Canterbury as stated in Garnock-Jones (1981). A habitat note with the above gathering reads "common near margin of tarn".

Dianthus plumarius L.

Canterbury, Lyttelton Port Hills, Dyers Pass Road, roadside bank, 1979, P. J. Garnock-Jones 1286, AK 160109 (dupl. ex CHR 363044).

Healy (1958) first recorded this pink from the Maniototo Plains. The above specimen is from the locality given in Garnock-Jones (1981).

Illecebrum verticillatum L.

Northland, NE Waipoua Forest, 1972, G. B. Rawlings, AK 160119, (dupl. ex CHR 227564).

The above specimen is a duplicate of the one cited in Garnock-Jones (1981). A correction slip with this publication gave the first record as Rawlings (1974). No other locality is cited in these publications.

Paronychia brasiliana DC.

Bay of Plenty, Pikowai Reserve, 1980, P. J. Garnock-Jones 1395, AK 160152, (dupl. ex CHR 361597).

This specimen is another voucher acquired by exchange with Christchurch, the first record being published in Garnock-Jones (1981). A habitat note states "short grass driven over by cars".

CHENOPODIACEAE

Chenopodium erosum R.Br.

Christchurch, Hoon Hay, margin of soya bean crop, 1968, P. C. Read, AK 160098, det. A. J. Healy, (dupl. ex CHR 174396).

Christchurch is the locality for the first record of this species in Sykes (1982a), where a few more South Island areas are given and where it is said to be rare.

GERANIACEAE

Geranium rubescens Yeo

Stewart Island, Halfmoon Bay, Oban, 1963, P. Hynes, AK 92087 as G. robertianum, det. W. R. Sykes 1983.

The first record for this geranium, collected by Healy in 1956 from near Invercargill, is in Sykes (1982b). Distribution is mainly in the South Island except for Upper Hutt in the North Island.

CUCURBITACEAE

Citrullus lanatus (Thunb.) Matsum. & Nakai

Waitemata Co., Whatipu, 1961, K. Wood, AK 73354; Mangonui Co., Spirits Bay, 1962, P. Hynes, AK 150995 (presented 1979) as *C. vulgaris* Schrad.

Corrigendum. The above data replaces the data published for this species in the previous list (Bangerter 1983:167).

EUPHORBIACEAE

Euphorbia exigua L.

Springs Co., Lincoln, cultivated land, 1962, F. C. Allen, AK 163187, det. A. J. Healy (dupl. ex CHR 143756).

The first record for dwarf spurge is in Healy (1957), the plant being collected in 1956 by F. C. Allen at Culverden. Healy (1969) also lists the species for Canterbury. The limited distribution of this spurge in Marlborough and Canterbury is noted by Webb (1981).

MIMOSACEAE

Acacia mearnsii de Wild

Bay of Islands Co., c. 6km NE of Kerikeri, Kurapari Road, 1972, A. E. Orchard 3584, AK 130907 (as *A. dealbata*), det. C. J. Webb 1980; Waitemata Co., Wairau Creek estuary, Milford Marina, 1980 E. B. Bangerter 5478, AK 152273, det. W. R. Sykes; Auckland City, St Heliers, 1982, A. E. Wright 5173, AK 15983.

Although the possibility of misidentifications of earlier gatherings is not ruled out, the first certain record for the black wattle is to be found in Webb (1980). The three specimens above add localities in the North Island, none being as yet cited for the South Island. Dr Orchard's note on habitat says "naturalised in *Leptospermum* scrub"; my own states "one tree c. 4m tall overhanging *Avicennia* in creek with *Foeniculum vulgare* and *Raphanus* sp. on the bank."; Mr Wright's has "one or two naturalised trees on seacliffs east of Achilles Point".

VITIDACEAE

Parthenocissus tricuspidata Planch.

Great Barrier Island, Tryphena Hill, roadside on rocks, 1964, R. Cooper, AK 119783, approb. W. R. Sykes, 1983.

Poison Ivy is not included in Sykes (1982b) as the specimen above was not seen by him until after the publication of his checklist.

COMPOSITAE

Calendula arvensis L.

Auckland, waste ground, 1959, Mrs D. V. G. Woods, AK 11836.

This is the first record for this marigold so far as I can ascertain.

Solidago canadensis L.

Waitemata Co., Milford, Crown Hill, footpath through waste area, 1982, E. B. Bangerter 5539, AK 159130.

Localities in Healy (1944) are all in the South Island but he refers to Allan (1940) where it is stated that this golden-rod "escapes in the North Island". It is also listed in Healy (1969) for Canterbury. The habitat note with the above gathering says "garden outcast with *Hedychium* sp., *Pelargonium* sp., *Daucus carota* and *Solanum nigrum*".

Stuartina muelleri Son.

Banks Peninsula, Scarborough Hill, 1947, A. Wall, AK 23311, det. H. H. Allan.

Cheeseman (1906) records this plant from Marlborough, the record being repeated by Thomson (1922) and Allan (1940) with few added localities. Healy (1943) adds further localities. Prof. Wall's gathering is the only one in AK.

PLANTAGINACEAE

Plantago varia R. Br.

Vicinity of Wellington, T. F. Cheeseman, AK 91121.

Sykes (1981) attributes the first record for this plantain to A. Cunningham (1838), who attributed it to his brother Richard as early as 1834, collected "between the villages of Ngaire and Wainui" in the North Island. The specimen cited above is not dated but it may serve as a voucher for a record published by Cheeseman (1906), who gives localities in both Islands. Among later authors is Healy (1943) who records North Canterbury as a locality.

CAMPANULACEAE

Campanula rapunculoides L.

Wellington, Hataitai, Neve Road, weed in garden, 1979, J. Moreland, AK 152500, det. P. J. Brownsey, (dupl. ex WELT).

The creeping bellflower, according to Matthews (1975) is usually found as a garden escape. It was first recorded by Allan (1940) but no locality was specified. Healy (1959) lists the species for Riccarton Bush and its distribution is summarised in Sykes (1981) as the Wellington area in the North Island and "many places southwards to Otago" in the South Island. The above specimen acts as a voucher for the Wellington area.

LABIATAE

Prunella laciniata (L.) L.

Waikato Co., southern side of Ngaruawahia, Highway 1, grass verge, 1982, E. K. Cameron 1882, AK 163057 (as *P. vulgaris*), det. W. R. Sykes, (dupl. ex AKU).

Sykes (1978) lists this species among those "for which the record is 'unsubstantiated'," but his determination of the above specimen, which has cream coloured flowers, authenticates the occurrence of the plant in New Zealand.

IRIDACEAE

Chasmanthe bicolor (Gasp.) N. E. Brown

Little Barrier Island, damp ground around the mouth of the Waikohare Stream, 1981, A. E. Wright 4138, AK 154899.

The first record for this species was published by Healy & Edgar (1980) from Auckland City. The above gathering extends its distribution.

Tritonia crocata (L.) Ker-Gawl.

Waitemata Co., Albany, Lonely Track Road, 1982, A. E. Wright 5198, AK 160624.

The first collection of this plant was in 1971 from Onehunga according to Healy & Edgar (1980) where the first record was published.

JUNCACEAE

Juncus capitatus Weigel

Hobson Co., Babylon Coast Road, N of Dargaville, 1977, J. E. Braggins, AK 15148, det. A. E. Wright 1980, (dupl. ex AKU); Mangonui Co., Te Kao, schoolhouse, 1971, R. C. Cooper, AK 129878, det. E. Edgar 1977).

Healy & Edgar (1980) describe this rush and give the first record as Healy (1970). These authors also state that it is "Now known from several localities in North Auckland and almost certainly more widely occurring than present records show".

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REFERENCES

ALLAN, H. H.

1940 A handbook of the naturalised flora of New Zealand. N.Z. Dep. Scient. Ind. Res. Bull. 83: 1-344.

BANGERTER, E. B.

1983 New and interesting records of adventive plants from the Auckland Institute and Museum Herbarium 9. *Rec. Auckland Inst. Mus.* 20: 165-174.

CHEESEMAN, T. F.

1906 Manual of the New Zealand flora. 1st ed. Wellington, Government Printer. 1199p.

CUNNINGHAM, A.

1838 Florae Insularum Novae Zealandiae Precursor. Ann. Nat. Hist. 1: 455-462.

GARNOCK-JONES, P. J.

- 1979 Checklist of dicotyledons naturalised in New Zealand. 4. Rhoeadales. N.Z.J.Bot. 17: 303-310.
- 1981 Checklist of dicotyledons naturalised in New Zealand. 8. Aizoaceae, Caryophyllaceae and Portulacaceae. N.Z.J.Bot. 19: 59-65.

HEALY, A. J.

- 1943 Some hitherto unrecorded plant stations. Trans. Proc. R. Soc. N. Z. 72: 324-332.
- 1944 Some additions to the naturalised flora of New Zealand. *Trans.R.Soc.N.Z.* 74: 221-231.
- 1957 Contributions to a knowledge of the adventive flora of New Zealand, No. 5. *Trans.R.Soc.N.Z.* 84: 649-659.
- 1958 Contributions to a knowledge of the adventive flora of New Zealand, No. 6. Trans, R. Soc, N. Z. 85: 531-549.
- 1959 Contributions to a knowledge of the adventive flora of New Zealand, No. 8. Trans. R. Soc. N. Z. 87: 229-234.
- 1969 The adventive flora in Canterbury. In *The natural history of Canterbury*. G. A. Knox (Ed.). Wellington, A. H. & A. W. Reed. pp. 261-233.
- 1970 Identification of weeds and clovers. 1st.ed. Wellington, Editorial Services. 191p.

HEALY, A. J., and E. EDGAR

1980 Flora of New Zealand Vol.3. Wellington, Government Printer. 220p.

RAWLINGS, G. B.

1974 Northland Notes 3. N.Z.J.Bot. 12: 563-565.

MATTHEWS, L. J.

1975 Weed control by chemical methods. Wellington, Government Printer. 710p.

SYKES, W. R.

- 1978 Checklist of dicotyledons naturalised in New Zealand. 2. Lamiales. N.Z.J.Bot. 16: 391-395.
- 1981 Checklist of dicotyledons naturalised in New Zealand. 11. Apocynales, Campanulales, Ericales, Gentianales, Loganiales, Plantaginales, Primulales and Rubiales. N.Z.J.Bot. 20: 319-325.
- 1982a Checklist of dicotyledons naturalised in New Zealand. 14. Chenopodiales and Polygonales. N.Z.J.Bot. 20: 325-331.
- 1982b Checklist of dicotyledons naturalised in New Zealand. 15. Annonales, Berberidales, Cactales, Fagales, some Geraniales, Juglandales, Laurales, Rutales, Salicales, Sapindales, Tiliales, Nyctaginaceae and Zygophyllaceae. *N.Z.J.Bot.* 20: 333-341.

THOMSON, G. M.

- 1875 On some naturalised plants of Otago. Trans. Proc. N. Z. Inst. 7: 370-376.
- 1922 *The naturalisation of animals and plants in New Zealand*. Cambridge, University Press. 670p.

WEBB, C. J.

- 1980 Checklist of dicotyledons naturalised in New Zealand. 5. Leguminosae. *N.Z.J.Bot.* 18: 463-472.
- 1981 Checklist of dicotyledons naturalised in New Zealand. 6. Araliaceae, Buxaceae, Cornaceae, Casuarinaceae, Celastrales, Euphorbiaceae, Linaceae, Malvaceae, Polygalaceae, Urticales. *N.Z.J.Bot.* 19: 45-51.